

PATENT COOPERATION TREATY

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OPINION OF THE INTERNATIONAL SEARCHING
AUTHORITY AND AMENDMENTS OF CLAIMS(PCT Rule 62 and
Administrative Instructions, Section 417(d))

From the INTERNATIONAL BUREAU

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Applicant

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The International Bureau hereby transmits a copy of the amendments to the claims under Article 18 together with any accompanying statement (Rule 62.1(ii)).

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PATENT CLAIMS

1. Device (1) to determine if a flow-controlled gaseous medium has suffered any effects, the device, in the normal operating position, allowing the medium free and direct through-passage and, in the testing position, allowing the medium to pass through an indicator (19), e.g. a fluid, that indicates the type of influence to which the medium has been exposed. Said device (1) comprises a housing (2) with a flow control body (3) that can move between two positions, the medium being able to flow directly through the device (1) with said body in one of its positions and being forced to flow through the indicator (19) with said body in its other position, the housing (2) and flow control body (3) being so designed that, with the latter in one of its positions (the upper position), the medium flows directly through the device (1) while, contemporaneously, the indicator (19) is closed off from the device's direct channel (5 - 7) for the medium and, with the flow control body (3) in its other position (the lower position), said channel (5 - 7) being broken and replaced by a channel (13) through the indicator, the whole being characterised by the flow control body (3) being cylindrical and mobile within a cylindrical cavity (4) in the housing (2) and, additionally, by the flow control body (3) having three seals (15 - 17) spaced along it and projecting from the body (3) to the perimeter of the cavity (4), the lower seal (17) and the middle seal (16) working together to form a direct through-flow channel (5 - 7) and the lower seal (17) completely closing off the indicator (19) from said direct through-flow channel (5 - 7).
2. Device as per patent claim 1, characterised by the flow control body (3) itself having a cavity (13) that, at the body's lower end, is completely open, there also being an opening (12) at the upper end of the cavity (13), said opening, when the flow control body (3) is in its lower position, forming a through-flow channel (5 - 13 - 7).
3. Device as per patent claim 1, characterised by the indicator (19) being a fluid such as propylene glycol in a compartment/housing (8) that, preferably, is transparent.

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4. Device as per one or more of the preceding patent claims, characterised by the device being connected into a system for the use of liquefied petroleum gas, the connection being made in such a way that the device is capable of determining whether there is leakage.

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5. Device as per patent claim 1, characterised by the flow control body (3) constantly taking up a home position (the upper position) owing to the action of a spring (18).

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